

Evidence Table 3**Evidence for Genetic Contribution to the Susceptibility to Dental Caries through MHC Analysis**

| Year | Authors | Study Design | Study Pop. | Controls | Genetic Analysis | Caries & Tooth Assessment | Data Analysis | Conclusions |
|------|----------------|--------------------|--|---------------------------------|---|----------------------------------|--|--|
| 1981 | Lehner et al | Matched groups | Low DMFS (1) 23 yrs old | High DMFS (18) | HLA typing | DMFS | F-test p<0.0008 | Significant relationship HLA DRw6,1,2,3 and caries experience |
| 1985 | de Vries et al | Matched pairs | military recruits caries-free | military recruits caries-active | HLA-Drw6 on blood cells | DMFS | F-test | No relationship of HLA DRw6 and caries incidence |
| 1994 | Mariani et al | Independent groups | 82 celiac patients | 189 normal | Serology for celiac disease | Enamel Defect determination | ANOVA p<0.005 | HLA DR3 increased risk of dental lesions, HLA-DR5,7 protected from defects |
| 1996 | Aine | Correlative | Adults & children with celiac disease | same group | Serology for celiac disease | Enamel Defect determination | Correlation | HLA-DR3, extended haplotype A1,B8 correlated with enamel defects |
| 1997 | Aguirre et al | Correlative | 137 celiac disease patients | same group | celiac disease & HLA serology DR7, DR3, DQ2 | Enamel Defect determination | Correlation | Celiac disease HLA DR3 increased enamel defects p<0.006, no caries effects |
| 1998 | Senpuku et al | In vitro | Nine adult donors | HLA Types | Serology for HLA | S. mutans antigen binding to HLA | Observational | S. mutans antigen bound to HLA DR8, DR5 and DR6 most strongly |
| 1999 | Acton et al | Comparative | 186 primiparous African-American women | same group | HLA typing on blood cells | DMFS and levels of S. mutans | Chi-square Fisher's exact p<0.005 DRB1 | DRB1-3 & BRB1-4 linked to high levels of S. mutans No correlation to DMFS |